

**DECISION RECORD AND
FINDING OF NO SIGNIFICANT IMPACT
EA-NM-510-05-49**

RECOMMENDATION: I recommend that Yates Petroleum Corporation's Application For Permit To Drill Or Deepen, the Charlotte Federal Com. #6 gas well, be approved. I recommend that provisions for the approval of the APD include the attachment of the Roswell Field Office requirements, as defined in the following exhibits; **Exhibit A** - the location map, **Exhibit B** - the Well Drilling Requirements, **Exhibit C** - the Conditions of Approval, **Exhibit D** - the Permanent Resource Road Requirements, **Exhibit E** - Surface Restoration/Reclamation Requirements, as well as, any special mitigating measures that were developed in the environmental assessment for this well. I recommend the approval of the project, which will include; the construction of the access road, well pad, reserve pit, the drilling and completion of the well, and the installation of subsequent production facilities. If the well is a dry hole or when the well is abandoned, I recommend that new substantial reclamation requirements be attached to the well abandonment, if the additional requirements are imperative for the complete restoration of the disturbed areas. These actions are subject to 43 CFR 3160 regulations for Onshore Oil and Gas operations on federal lease NM-16324.

These actions will affect public land described as:

New Mexico Principal Meridian

Section 29; NE $\frac{1}{4}$ NW $\frac{1}{4}$, T. 7 S., R. 26 E.

Authority for this action is the Mineral Leasing Act of February 25, 1920, as amended.

RATIONALE FOR RECOMMENDATION: The proposed actions would not result in any undue or unnecessary environmental degradation. Portions of the subject land and adjacent land have been used for similar purposes and all present and potential uses and users have been considered.

DECISION: The recommendation and rationale are adopted as my decision.

FINDING OF NO SIGNIFICANT IMPACT: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts resulting from the proposed actions are not expected to be significant and an environmental impact statement is not required.

COMPLIANCE AND MONITORING: The construction phase of the proposed actions and subsequent operational phases will be monitored as per regulations.

/s/ Larry D. Bray

7/18/05

**Larry D. Bray, Assistant Field Manager,
Lands and Minerals**

DATE

ENVIRONMENTAL ASSESSMENT

EA# NM-510-05-49

WELL NAME & NO.: Charlotte Federal Com. #6

Serial #: NM-16324

NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 29, T. 7 S., R. 26 E.,
N.M.P.M., Chaves County, New Mexico

OPERATOR: Yates Petroleum Corporation

ACTION: Application for Permit to Drill

SURFACE/MINERAL ESTATE: Federal Minerals/Surface

I. INTRODUCTION

A. Need for the Proposed Action:

Yates Petroleum Corporation proposes to drill and complete a natural gas well at the location described above. The proposed action is needed to develop the mineral lease.

B. Conformance with Land Use Plan:

The proposed action is in conformance with the Roswell Approved Resource Management Plan and Record of Decision, October 1997.

C. Relationship to Statutes, Regulations, or other Plans:

1. The proposed action does not conflict with any known State or local planning, ordinance or zoning.
2. Federal Executive Order of 2/3/99; New Mexico Noxious Weed Management Act of 1998.

II. Proposed Action and Alternatives

A. Proposed Action-Background Information

Yates Petroleum Corporation resubmitted an Application for Permit to Drill on May 10, 2005. Yates Petroleum Corporation originally submitted Notices of Staking on October 6, 2000, to drill the Charlotte Federal Com #6 gas well. The original Application for Permit to Drill was submitted on November 13, 2000. An Application for Permit to Drill was re-submitted on March 26, 2003.

The proposed action would include:

- 1.} The construction of approximately 1500 feet of new access road from the point of origin to the southwest corner of the proposed well pad. All other existing access roads would be maintained in as good or better condition than was existing at the commencement of operations. No Right-of-Way required.
- 2.} The construction of the proposed well pad would be 185 feet long by 325 feet wide. Standard oilfield construction equipment consisting of; track-type tractors, motor graders, dump trucks, and

water trucks would be used to construct the access road and well pad. A drilling rig would be used to drill the well.

3.) Surfacing material (caliche/gravel) needed for the construction of the access road and well pad could be obtained by the operator from a FEDERAL pit in SE¹/₄SW¹/₄ of Section 7 - T. 7 S. - R. 26 E., Chaves County, New Mexico.

4.) Because the well pad would be constructed on the Pecos River floodplain, in lieu of reserve pits, the use of a closed system (steel tanks) would be used. Utilizing steel tanks during drilling operation would prevent pollutants from being inundated on the floodplains and/or from entry into the river waters. The downhole casing and cementing requirements would be more than adequate protection for controlling any fluid loss from the well bore. Associated production facilities apparatus would be installed during the production phase of this well, such as, christmas tree, pipelines, separators, and meter house, etc..

B. Alternatives:

1.) Relocate the Proposed Action

The well location is determined on the basis of subsurface geologic information and by the New Mexico Oil Conservation District II, imposed spacing regulations. No other alternative location would have significantly fewer impacts than, or have a clear advantage over, the proposed location. Therefore, the alternative of changing the location involved in this action is not analyzed further in this EA.

2.) No Action

Under this alternative, the application would be rejected. None of the environmental impacts associated with the proposed action, or an alternate location, would occur. Additionally, none of the anticipated benefits of the proposed action would be realized and the existing situation would continue.

III. Description of the Affected Environment

A. General Setting:

The proposed access road and well pad are located on federal land, an estimated 28 miles, NE, of Roswell, NM. Access to the site is described in the APD. Historical and present use of the subject land has been limited to livestock grazing and energy development. The proposed action does not conflict with any of the existing uses.

B. Rights of Record:

An inspection of the Master Title Plats and other Bureau records revealed the following title information pertaining to valid existing prior rights on the subject land:

- Oil and gas leases: NM-16324 - covers lease actions.
- No federally administered rights-of-way will be affected in the project area.
- No mining claims are recorded within Sec. 29, T. 7 S., R. 26 E., N.M.P.M.

C. Affected Resources:

The following critical resources have been evaluated and are either not present or are not affected by the proposed action or the alternatives in this EA:

Areas of Critical Environmental Concern (ACEC's)
Cultural Resources (01-R-010-A)
Farmlands, Prime/Unique
Native American Religious Concerns
Wastes, Hazardous/Solid
Wild & Scenic Rivers
Wilderness

1. Air Quality:

The area of the proposed actions is considered Class II air quality area. A Class II area allows a moderate amount of degradation of air quality. Primary sources of air pollution is the wind blowing on disturbed or exposed soils causing dust dispersion and by motorized equipment diffusing exhaust omissions.

2. Soil:

These soil group is described in the Soil Survey of Chaves County, New Mexico - Northern Part (Page 35 and map #17). The proposed action would occur in areas in the floodplains of the Pecos River. GPA - Glendale-Pecos-Harkey association.

Permeability of the Glendale soil is moderately slow. Available water capacity is very high. Runoff is medium, and the hazard of water erosion is moderate. The hazard of soil blowing is high. 0 to 1 percent slopes.

Permeability of the Pecos soil is very slow. Available water capacity is high. Runoff is medium and the hazard of water erosion is moderate. The hazard of soil blowing is high.

Permeability of the Harkey soil is moderate. Available water capacity is high. Runoff is rapid and the hazard of water erosion is high. The hazard of soil blowing is high.

3. Vegetation: DRAINAGES, DRAWS AND CANYONS

This lease is within the drainages, draws and canyons vegetative community as identified in the Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS). Appendix 11 of the Draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies the components of each community. The DDC community is comprised of the major drainages crossing the landscape. Vegetation within the large drainages support scattered cottonwood (*Populus* spp.), saltcedar (*Tamarix ramossissima*) and mesquite (*Prosopis glandulosa*). The breaks support characteristic mixed-desert-shrub species such as indigo bush (*Dalea* spp.), yucca (*Yucca* spp.), fourwing saltbush (*Atriplex canescens*), and mesquite.

A. The native vegetation in the area is composed of mainly grasses, shrubs, and forbs, such as giant sacaton (*Sporobolus giganteus*), tobosa (*Pleuraphis mutica*), alkali sacaton (*Sporobolus airoides*), fourwing saltbush and vine mesquite (*Panicum obtusum*). Deterioration of the native plant community results in a rapid invasion by other less desirable plant species. The mean annual precipitation is 11 to 12 inches.

The Ecological Site Description for the access road and proposed well pad is: [SD-3 Bottomland, Southern Desertic Basins, Plains and Mountains]

4. Invasive & Noxious Weeds:

There are no known populations of invasive or noxious weed species on the road to the proposed access road and well pad.

Infestations of noxious weeds can have a disastrous impact on biodiversity and natural ecosystems. Noxious weeds affect native plant species by out-competing native vegetation for light, water and soil nutrients. Noxious weeds cause estimated losses to producers \$2 to \$3 billion annually. These losses are attributed to: (1) Decreased quality of agricultural products due to high levels of competition from noxious weeds; (2) decreased quantity of agricultural products due to noxious weed infestations; and (3) costs to control and/or prevent the noxious weeds.

Further, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers' feed and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both the directly influenced and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and taxpayers of the United States are directly affected when noxious weed control prevention is not exercised.

4. Ground Water Quality:

Fresh water for irrigation and stock use is obtained from the Quaternary Alluvium and the Artesia Group. Known depths to water range from 7' to approximately 250'. Additionally, the well location is near the fresh/saline water interface of the San Andres Formation and because of this there is a possibility of fresh water down to a depth range of 700' to 900'.

5. Wildlife:

Wildlife species utilizing this area for habitat include mule deer, coyote, fox, rabbits, kangaroo rats, pocket gophers, prairie rattlesnakes, waterfowl, as well as a variety of songbirds, dove, quail, and raptors.

The APD to drill a gas well on the Pecos River floodplains could affect the Pecos Bluntnose Shiner (*Notropis simus pecosensis*) that is listed as a threatened species with critical habitat on February 20, 1987 (USFWS 1987a). The proposed action was not proposed to jeopardize, any known special status species (plant/animal) or critical habitat, directly or indirectly within the lease holders authorization to develop a gas well in the floodplain area. However, the proposed project could influence some of the habitat that could be considered supportive of the Pecos Bluntnose Shiner habitat. The proposed action is not likely to jeopardize the continued existence of the Pecos Bluntnose Shiner or adversely modify its critical habitat.

Even though, gas does not occur in underground rivers or lakes, but instead, occur in small, interconnected pore spaces in rock, protective measures will be specified to this action to prevent the possibility of river water contamination. In view of the project being proposed on the floodplains of the Pecos River, uncompromising environmental protection measures will be implemented for the preservation of the Pecos Bluntnose Shiner. Reasonable and prudent measures would be enacted on the proposed action so that the project would not directly or indirectly influence the downstream Pecos River habitat of the species. An Application for Permit to Drill was re-submitted on March 26, 2003. Steel tanks would be recommended, to be used during the drilling phase of the operations, to prevent the possibility of the drilling muds spilling on the floodplains.

6. Range:

A. The well is located on the following grazing allotment:

- Grazing allotment #64048 operated by: Gary Lynch, HCR 31 Box 1080, Roswell, NM 88201.

7. Visual Resources:

The proposed action is located in a scenic area along the Pecos River corridor designated VRM Class III. The setting presents a winter gray color pattern and in warm months, with foliage, a gray to gray-green color pattern.

8. Recreation:

The area around the proposed action site is primarily used by recreational visitors engaged in hunting, off-highway vehicle use and other recreational activities. Non-recreation visitors include oil and gas industrial workers and ranchers.

9. Cave/Karst:

While the proposed action is located in the *Medium Potential Karst Area*, no surface cave/karst features were observed in the immediate vicinity of the proposed actions.

10. Minority or Low-income Populations or Communities:

The proposed project would not affect the minority or low-income populations or communities.

11. Floodplains:

Floodplains, Wetlands and Riparian Zones, are the critical resources which are present with this proposed action. The proposed access road and well pad are situated on a floodplain just adjacent to the Pecos River. Streams, Rivers and Floodplains stipulations/requirements are included in Appendix 1. entitled: Surface Use and Occupancy Requirements of the Roswell Approved Resource Management Plan and Record of Decision dated 1997. Floodplains stipulations/requirements are included in Appendix 2., entitled: ROSWELL DISTRICT CONDITIONS OF APPROVAL of the Roswell Approved Resource Management Plan and Record of Decision Dated 1997.

The well pad and access road location is located in the 100-year floodplain of the Pecos River floodplain (See Exhibit A-2). The well pad and access road location is located in Zone A or "Area of the 100-year flood". The floodplain ranges in width from less than one-quarter mile to more than one

mile in the area. Channel banks are generally stable, but are actively being cut in some locations. This is most likely due to entrenchment of the channel rather than disturbance associated with land use activities. The channel material is primarily a sand and gravel bed with small cobbles and silt. The stream gradient is relatively flat (0.25 percent).

For administrative purposes, the 100-year floodplain serves as the basis for floodplain management on public lands. It is based on Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (1983). Current development on the floodplain consists of two-track roads and several miles of boundary fence in the area. There are several private oil or gas developments in the floodplain in the area.

IV. ENVIRONMENTAL IMPACTS

A. Proposed Action Impacts:

The surface disturbance involved in the construction of the access road, well pad, and reserve pit would accumulate about 3.0 acres of federal surface.

Environmental impacts that can be anticipated include:

1. Air Quality:

a.) Air quality would temporary be impacted with pollution from exhaust omissions, chemical odors, and dust that would be caused by the motorized equipment used to construct the access road, well pad, and by the drilling rig that will be used to drill the well. Dust dissemination would discontinue upon completion of the construction phase of the road and well pad. The completion of the drilling phase of the operations would drastically reduce the air pollution from the motorized equipment. The winds that frequent the southeastern part of New Mexico generally help in dispersing the odors and omissions. The impacts to the air quality would be greatly reduced as the operational phases of doing business in the gas field are completed.

2. Soil:

a.) The construction of the access road and well pad, would contribute to the mixing of the soil horizons and the exposed soil would be susceptible to wind blowing and water erosion. Surfacing the exposed areas will minimize the impacts to the soil.

b.) The removal and stockpiling of topsoil for future use over the disturbed areas would temporarily impact the soil. The impact would be remedied upon reclamation, when the soil stockpile would be spread over the disturbed areas to establish a seedbed.

3. Vegetation:

a.) The construction equipment that is used to construct the access road, well pad, and the drilling rig that is used to drill the well may impact the vegetation by contributing to the dissemination of invasive and noxious weed seed. Washing and decontaminating the equipment prior to transporting onto and exiting the construction areas would minimize this impact.

b.) Pipeline construction would temporarily affect the soil and vegetation along the pipeline route. Prudent pipeline construction would minimize soil disturbance and the areas should recover with

appropriate revegetative efforts. Pipeline ruptures along the flow-line could cause soil contamination and the eradication of vegetation in the area(s) where the pipeline burst. Pipeline construction equipment could also impact the vegetation if the equipment is not cleansed of invasive and noxious weed seed prior to entering federal land.

4. Ground Water Quality:

a.) Improper disposal of drilling muds and wastes could result in contamination of the soil and water resources and limit the viability of plants and wildlife populations in the area.

b.) Produced fluids (e.g.: saltwater, oil, and/or condensate) could cause permanent damage off the well pad in the event of a breach, overflow, or spill from storage tanks associated with production facilities on the well pad.

c.) The access road would be impacted when heavy precipitation causes water erosion damage. The integrity of the access road would also be impacted during periods of severe weather when water saturated segment(s) on the access road become impassable and vehicles are driven over the road. Consequently impending tire ruts would develop and eventually where the disintegrated segments occur, so do unauthorized driving would materialize outside the route of the access road.

5. Wildlife:

a.) Some small wildlife species may be killed and their dens or nests destroyed during construction and operation of the well.

b.) T/E species: The proposed project could influence some of the habitat that could be considered supportive of the Pecos Bluntnose Shiner habitat. The proposed action is not likely to jeopardize the continued existence of the Pecos Bluntnose Shiner or adversely modify its critical habitat.

c.) In view of the project being proposed on the floodplains of the Pecos River, uncompromising environmental protection measures will be implemented for the preservation of the Pecos Bluntnose Shiner. Reasonable and prudent measures would be enacted on the proposed action so that the project would not directly or indirectly influence the downstream Pecos River habitat of the species. Steel tanks will be used during the drilling phase of the operations, to prevent the possibility of the drilling muds spilling on the floodplains.

6. Range:

a.) Livestock, waterfowl, and other wildlife could enter and become trapped in the reserve pit that could eventually cause the annihilation of the animal(s).

7. Visual Resources:

Facilities, such as produced water, condensate or oil storage tanks that rise above eight feet, would provide a geometrically strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation, which have flat, horizontal to slightly rolling form and line. The construction of an access road, well pad and other ancillary facilities, other than facilities greater in height than eight feet, would slightly modify the existing area visual resources.

The Class III objective is to: Partially retain existing landscape character. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate a casual observer's view. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Under visual resource Class III, the method for repeating the basic elements would be to remove strong vertical and horizontal contrast through use of low-profile facilities as reflected in the Roswell RMP (1997, p. AP1-4). Depending on the production nature of the well site, multiple low-profile condensate and/or oil or produced water tanks would be necessary to accommodate the project.

Through color manipulation, by painting well facilities to blend with the rolling to flat vegetative and/or landform setting with a gray-green to brownish color, the view is expected to favorably blend with the form, line, color and texture of the existing landscape. The flat color *Olive Drab* from the supplemental environmental colors also closely approximates the brownish color of the setting. All facilities, including the meter building, would be painted this color.

The construction of an access road and other ancillary facilities, other than facilities greater in height than eight feet, would slightly modify the existing area visual resources. To further implement visual goals of a Class III setting, the well pad and pits would be designed to reduce vegetative and soil disturbance with the pits either dug provided as steel pits, black, gray or brush brown in color. The access road, well pad, pit(s) and berm(s) would be similar to the texture and horizontal line found throughout the setting. This strategy would be generally acceptable to the various visitors and workers in this setting.

Cumulative adverse visual impacts can be avoided by gradually moving into a more appropriate vegetative/landform setting color scheme. Facilities with low-profile horizontal line and form would facilitate favorable blending as older facilities go out of production and are removed.

8. Recreation:

Oil and gas activities would have little or no affect on recreational opportunities within this area. Large blocks of public land would allow recreationists to use public land and avoid the oil and gas facilities within the area.

9. Cave/Karst:

There should be no adverse impacts cave/karst features in the vicinity of the proposed actions.

10. Minority or Low-income Populations or Communities:

a.) The impact of the proposed action and alternatives to minority or low-income populations or communities has been considered and no significant impact is anticipated.

11. Floodplains:

a.) The floodplain may be affected or impacted by accidental drilling fluid spills or leaks during the drilling phase and production phase. Steel tanks will be used in lieu of reserve pits and emergency pits, because the well pad is in the Pecos River floodplain. Standard oilfield construction equipment consisting of ; track-type tractors, motor graders, dump trucks, and water trucks would be used to construct the access road and well pad. A drilling rig would be used to drill the well. The steel tanks used in drilling a gas well are designed so that drilling fluids (mud) and produced fluids (e.g.: saltwater,

oil, and/or condensate) are contained within the steel tanks and are not allowed to discharge out onto the floodplain. All production facilities will be located outside of the floodplain.

The project would not affect the flow patterns of the main river channel or would reduce the ability of the river to sustain sufficient water quality, quantity, and velocity flow. The construction of the well and access road would not radically affect the integrity of the floodplain, except for the invariable affects of fragmentation and reduction of a few acres of floodplain habitat. The impact from drilling fluid contamination is minimal since the use of steel tanks would prevent drilling fluids from entering out onto the floodplain. The impact from produced fluid is minimal since the production facilities will be located outside of the floodplain. If the well is a producer, produced fluids (e.g.: saltwater, oil, and/or condensate) could cause permanent damage to the floodplain in the event of a breach, overflow, or spill from steel tanks during the drilling phase. There is a remote possibility that accidental drilling fluid contamination of the floodplain could occur during the drilling phase. Steel tanks will be used in lieu of reserve pits and emergency pits. The steel tanks shall be constructed so as not to leak, break, or allow discharge of drilling fluids (muds) on the ground. The holder shall dispose of drilling fluids (muds) and tailings at an authorized disposal site. No drilling fluids (muds) and/or tailings shall be dumped on location.

The use of steel tanks would protect the floodplain from the possibility of drilling fluid and production fluid contamination. The placement of production facilities outside of the floodplain would prevent contamination of the floodplain from spillage or leakage of produced fluids (e.g.: saltwater, oil, and/or condensate).

Indirect effects could result from well drilling operations and/or from well production facilities, should contaminants be released in sufficient quantities to affect wildlife and habitat. The well drilling phase is exposed to an increased risk from flooding which could affect the floodplains, if the dissemination of pollutants should occur because of flooding. However, the river waters and the floodplain habitat would not be affected if well drilling operations are appropriately regulated and the incident of perforations from well production facilities are significantly reduced by diligent maintenance of the equipment.

B. Alternatives:

No Action Alternative:

The "No Action" alternative would constitute denial of the application. This alternative would result in none of the identified environmental impacts. There would, however, be an adverse economic impact to the applicant through the denial of the lessee's right to develop the mineral reserves or through increased costs of accessing those mineral reserves through other means. There have been no significant or unmitigatable impacts identified as a result of this analysis which would warrant selection of the no action alternative.

C. Mitigation:

The Roswell Field Office; Well Location Map (Exhibit A), Well Drilling Requirements (Exhibit B), Conditions of Approval (Exhibit C), Permanent Resource Road Requirements (Exhibit D), Surface Restoration/Reclamation Requirements (Exhibit E), and the special requirements derived from this EA, would be applied to this proposed action to minimize the surface disturbance and conserve the surrounding landscape.

D. Cumulative Impacts:

The direct effects of the proposed actions would include; disbursement of surface land use, soil displacement, uprooting of vegetation, and further fragmentation of wildlife habitat. Subsequent effects could include the possibility of soil contamination in the event of a leak or spill and groundwater contamination in the event of casing failure. Impacts to wildlife is the temporary elimination of habitat that is viable for their existence. Impacts from reclamation would have long-term effects if improper rehabilitation efforts thwart vegetation growth.

The cumulative impacts from continued development of gas wells in the floodplains would eventually yield to the loss of habitat. The accumulation of land use from wells are compatible with the lease authorization, and from that stand point, the land disturbances are consistent with the well plan of development. Protective measures would be imposed on well development, that would include, but are not limited, to well pad and road construction, drilling; downhole casing and cementing, and production facility apparatus installment, so that the cumulative impacts from these actions are minimized. No conditional release of pollutants whatsoever are allowed to happen on the floodplains, however, farther well development on the lease would increase the possibility of pollutants being released onto the floodplains. The cumulative impacts from the release of pollutants on the floodplains would be significantly reduced if prudent measures are enacted to detect and prevent surface and subsurface damage before any substantial harm can be done to the environment. In the absence of a catastrophic flood or a serious spill, consequential cumulative impacts are not expected from this proposed action. There are no other alternative actions that would avoid the likelihood of jeopardy to the continued existence of listed species or destruction or adverse modification of critical habitat.

In the foreseeable future the lease holder could develop more wells that could accumulate to a substantial reduction of habitat. The gas well development mitigation measures will greatly reduce, but may not completely eliminate, accidental spills or casing failures that could contaminate the aquifers. While it is likely that there will be no significant cumulative effects from this individual action, continued oil and gas development, and other surface-disturbing activities in this area may potentially have negative cumulative impacts on vegetation, soil, water, livestock, wildlife and visual resources.

V. Consultation and Coordination

An onsite inspection was conducted on the access road and well pad (10/26/00). In attendance was Mrs. Pat Perez, Permit Agent for Yates Petroleum Corporation, and Richard Hill, Environmental Protection Specialist from BLM.

Coordination and consultation has occurred with the applicant's agent. The comments and suggestions expressed during the onsite consultation have been incorporated into this EA.

Reviewed by:

Irene M. Gonzales
Irene M. Gonzales, Reality Specialist

— 4-29-03
DATE

EXHIBIT B

WELL DRILLING REQUIREMENTS

1 of 6 pages

OPERATORS NAME: Yates Petroleum Corporation LEASE NO.: NM-16324
WELL NAME & NO: Charlotte Federal Com. #6
QUARTER/QUARTER & FOOTAGE: NE¹/₄NW¹/₄ & 660' FNL & 1980' FWL
LOCATION: Section 29, T. 7 S., R. 26 E., N.M.P.M.
COUNTY: Chaves County, New Mexico

I. GENERAL PROVISIONS:

- A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
- B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who approves the Well Drilling Requirements.

II. WELL PAD CONSTRUCTION REQUIREMENTS:

- A. The BLM shall administer compliance and monitor construction of the access road and well pad. Notify Richard G. Hill at least 3 working days (72 Hours) prior to commencing construction of the access road and/or well pad. Roswell Field Office number (505) 627-0247.
- B. Prior to commencing construction of the access road, well pad, or other associated developments, the holder shall provide the dirt contractor with a **copy of the approved APD signature page, a copy of the location map (EXHIBIT A), a copy of pages 1 & 2 from the Well Drilling Requirements (EXHIBIT B), and a copy of the Permanent Resource Road Requirements (EXHIBIT D).**
- C. The holder shall stockpile the topsoil from the surface of the well pad. The topsoil on the Charlotte Federal Com. #6 well pad is approximate 6 inches in depth. Approximately 800 cubic yards of topsoil shall be stockpiled on the Southeast corner of the well pad, opposite the reserve pit.
- D. **Steel Tank Requirements: NO RESERVE PITS**
 - 1. **The holder shall use steel tanks for drilling the well in lieu of reserve pits.** Steel tanks will help prevent the possibility of the drilling fluid leaching into the underground aquifers and reduce soil disturbance.
 - 2. The steel tanks shall be constructed so as not to leak, break, or allow discharge of drilling muds. Under no circumstances shall the steel tanks be opened and allowed to drain drilling muds on the ground.

3. The steel tanks shall be equipped to deter entry by birds, bats, and other wildlife.
4. The holder shall dispose of drilling muds and cuttings at an authorized disposal site. No drilling muds and/or cuttings shall be dumped on location.

E. Federal Mineral Materials Pit Requirements:

1. Caliche, gravel, or other related materials from new or existing pits on Federal mineral estate shall not be taken without prior approval from the authorized officer. Contact Jerry Dutchover at (505) 627 - 0236.
2. Payment for any Federal mineral materials that will be used to surface the access road and the well pad is required prior to removal of the mineral materials.
3. Mineral Materials extracted during construction of the reserve pit may be used for development of the pad and access road as needed, for the Charlotte Federal Com. #6 gas well only. Removal of any additional material on location must be purchased from BLM prior to removal of any material.
 - a. An optional mineral material pit may be constructed within the archaeologically cleared area. The mineral material removed in the process can be used for pad and access road construction. However, a mineral material sales contract must be purchased from the BLM prior to removal of any material.

F. Well Pad Surfacing Requirement:

The well pad shall be surfaced with 6 inches of compacted caliche, gravel, or other approved surfacing material. The well pad shall be surfaced prior to drilling operations. See **Permanent Resource Road Requirements - EXHIBIT D - requirement #4, for road surfacing.**

G. Cave Requirements:

1. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease. Contact Larry Bray at (505) 627-0250.
2. The BLM Authorized Officer will, within 24 hours of notification in "A" above, conduct an on-the-ground field inspection for karst. At the field inspection the authorized field inspector will authorize or suggest mitigating measures to lessen the damage to the karst environment. A verbal order to proceed or stop the operation will be issued at that time.

III. DRILLING OPERATION REQUIREMENTS:

A. GENERAL DRILLING REQUIREMENTS:

(5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.)

IV. ON LEASE - WELL REQUIREMENTS:

A. The holder shall post signs identifying the location permitted herein with the requirements contained in Onshore Oil and Gas Order #1 and 43 CFR 3162.6.

B. The following data is required on the well sign that shall be posted in a conspicuous place on the well pad. **The communitization agreement number shall be posted on the well sign.** The sign shall be kept up with current identification and shall be legible for as long as the well is in existence:

Operator Name: Yates Petroleum Corporation
Well Name & No.: Charlotte Federal Com. #6
Lease No.: NM-16324
Footage: 660' FNL & 1980' FWL
Location: Section 29, T. 7 S., R. 26 E.

C. UPON ABANDONMENT OF THE WELL, THE SAME INFORMATION SHALL BE INSCRIBED ON THE DRY HOLE MARKER WITH A BEADED WELD.

D. The approval of the APD does not in any way imply or grant approval of any on-lease, off-lease, or off-unit action(s). It is the responsibility of the holder to obtain other approval(s) such as rights-of-way from the Roswell Field Office or other agencies, including private surface landowner(s).

E. All vehicles, including caterpillar track-type tractors, motor graders, off-highway trucks and any other type of motorized equipment that is used in the construction of the access road and well pad shall be confined to the area(s) herein approved. The drilling rig that is used to drill the well shall also be confined to the approved area(s).

F. **Containment Structure Requirement:**

1. A containment structure or earthen dike shall be constructed and maintained around all storage facilities/batteries. The containment structure or earthen dike shall surround the storage facilities/batteries.

2. The containment structure or earthen dike shall be constructed two (2) feet high around the facilities/batteries (the containment structure or earthen dike can be constructed higher than the two (2) feet high minimum).

3. The perimeter of the containment structure or earthen dike can be constructed substantial larger for greater holding capacity of the contents of the largest tank.

4. The containment structure or earthen dike shall be constructed so that in case of a spill the structure can contain the entire contents of the largest tank, plus 24 hour production, within the containment structure or earthen dike, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

G. Painting Requirement:

All above-ground structures (e.g.: meter houses, tanks, above ground pipelines, and related appurtenance, etc.) not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for painting all the well facilities is *Olive Drab*, Supplemental Environmental Soil Color Chart Number *18-0622 TPX*

H. Fence Requirement:

The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair impacted improvements to at least their former state. On private surface the holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officer.

I. Open-vent Exhaust Stack Requirements:

1. All open-vent exhaust stacks associated with heater-treater, separators and dehydrator units shall be modified to prevent birds and bats from entering them and to the extent practical to discourage perching and nesting.
2. New production equipment installed on federal leases after November 1st, 1993, shall have the open-vent exhaust stacks constructed to prevent the entry of birds and bats and to the extent practical, to discourage perching, and nesting.

V. Invasive and Noxious Weeds Requirement:

A. The holder shall be held responsible if noxious weeds become established within the area. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipelines, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

B. The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, well pad and resulting well are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

VI. SPECIAL REQUIREMENT(S):

A. Low-profile facilities no greater than eight-feet-high shall be used. If necessary, multiple tanks shall be used.

B. FLOODPLAIN DEVELOPMENT REQUIREMENTS:

1. If a threat of flooding by the Pecos River occurs during drilling operations, the Roswell Field Office Area Manager will issue a shut-in order. Toxic substances and, possibly, drilling equipment will be removed from the floodplain.
2. The drilling pad shall be elevated at least 6 inches above ground level and surfaced according to surfacing stipulations prior to drilling operations.
3. All riparian habitat will be protected according to instructions provided by the Authorized Officer. Trees will not be cut down unless authorized.
4. Self-contained metal tanks are required.
5. Pits containing oil, tank bottoms or other hydrocarbons, salt water, or any toxic substances will not be allowed in the floodplain.
6. Provisions for containing salt water flow must be made prior to beginning drilling, without resorting to reserve pits constructed in the ground. Metal tanks or tank trucks must be in place to collect salt water and overflow of salt water. No salt water or condensation storage facilities shall be allowed in the floodplain.
7. Production facilities will be located outside the floodplain. The floodplain and well location is shown in Exhibit A-2.
8. All pipelines and flowlines from the wellhead to production facilities shall be buried.
9. Special precautions will be taken to reduce damage from flooding:
10. Chemical toilets will be used instead of latrines.

C. Three steel posts will be set in concrete. Horizontal steel cross bars will connect the posts. Heavy gauge chain link fencing will be welded or bolted to the post and cross bars. The V must point upstream or in the direction specified. (**See Exhibit E**).

EXHIBIT C

1 of 3 pages

CONDITIONS OF APPROVAL

OPERATOR: Yates Petroleum Corporation

LEASE NO: NM-16324

WELL NAME & NO.: Charlotte Federal Com. #6

LOCATION: Section 29, T. 7 S., R. 26 E., N.M.P.M.

QUARTER/QUARTER & FOOTAGE: NE $\frac{1}{4}$ NW $\frac{1}{4}$ - 660' FNL & 1980' FWL

COUNTY: Chaves County, New Mexico

GENERAL CONDITIONS OF APPROVAL:

1. The **operator** shall hereafter be identified as the **holder** in these requirements. The Authorized Officer is the person who approves the Conditions Of Approval.
2. The holder shall indemnify the United States against any liability for damage to life or property arising from occupancy or use of public lands under this authorization.
3. The holder shall have surface use approval prior to any construction work on change(s) or modification(s) to the access road and/or well pad. The holder shall submit (Form 3160-5), Sundry Notice and Report On Wells, an original plus one (1) copy to the Roswell Field Office, stating the basis for any changes to previously approved plans. Prior to any revised construction the holder shall have an approved Sundry Notice and Report On Wells or written authorization to proceed with the change in plans ratified by the Authorized Officer.
4. **Weed Control:**
 - A. The holder shall be held responsible if noxious weeds become established within the area. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipelines, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

B. The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, well pad and resulting well are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

5. Hazardous Substances:

a. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act Of 1976, as amended (15 U.S.C. 2601, *et. seg.*) with regard to any toxic substances that are used, generated by or stored on the project/pipeline route or on facilities authorized. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

b. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substances or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seg.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seg.*) on this project/pipeline (unless the release or threatened release is wholly unrelated to the holder's activity on the pipeline). This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.

6. Undesirable Events:

If, during any phase of the construction, operation, maintenance, or termination of the authorization, any oil or other pollutants, should be discharged, and impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutants, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal land, or to repair all damages to Federal land resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

7. Archaeological, Paleontology, and Historical Sites:

- a. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- b. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of the project work, the holder shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The holder or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes. Any unauthorized collection or disturbance of cultural resources may result in a shutdown order by the Authorized Officer.

8. Sanitation:

The holder shall be responsible for maintaining the site in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

9. Open-top Tanks: Any open-top tank containing oil and/or toxic fluids shall be covered with netting or equipped to prevent birds, bats, and other wildlife from entering the open-top tank.

10. Other: None

EXHIBIT D

1 of 4 pages

PERMANENT RESOURCE ROAD REQUIREMENTS

Operator: Yates Petroleum Corporation
BLM Serial Number: NM-16324
Well Name & NO.: Charlotte Federal Com. #6
Location: Section 29, T. 7 S., R. 26 E.
660' FNL & 1980' FWL, Chaves County, N.M.

The holder agrees to comply with the following requirements:

1. GENERAL REQUIREMENTS:

- A. The **operator** shall hereafter be identified as the **holder** in these requirements. The Authorized Officer is the person who approves the Permanent Resource Road Requirements.
- B. The holder shall minimize any disturbance to structures on public domain surface. Damages caused to any structure during road construction operations shall be promptly repaired by the holder. Functional use of any structure shall be maintained at all times. The holder shall make a documented good-faith effort to contact the owner prior to disturbing any structure.
- C. When necessary to pass through an existing fence line, the fence shall be braced on both sides of the passageway prior to cutting and the fence shall be promptly repaired to at least it's former state or to a higher standard than it was previously constructed.
- D. A professional engineer shall design the access road if the road grade exceeds 10 percent slope.

2. INGRESS AND EGRESS:

The access road shall be constructed to access the well pad on the **Southwest** corner of the well pad to comply with the planned access road route.

3. ROAD TRAVELWAY WIDTH:

The travelway of the road shall be constructed 14 feet wide. The maximum width of surface disturbance shall not exceed 30 feet of road construction. The specified travelway width is 14 feet for all road travelway surfaces unless the Authorized Officer approves a different width.

4. SURFACING:

A. Beginning from the dedicated road (county road and/or state highway) all access roads on federal surface and the entire length of the new access road travelway shall be surfaced prior to drilling operations.

B. **The access road travelway shall be surfaced** with caliche or gravel material. If other surfacing material is used, the new type of material shall be approved by the Authorized Officer. The travelway of the road shall be surfaced with **caliche** material. The caliche material shall be compacted to a minimum thickness of **6** inches for the entire length of the travelway surface on the access road. The width of surfacing shall not be less than 14 feet of travelway surface. Prior to using any mineral materials from an existing federal pit, authorization must first be obtained from the Authorized Officer.

5. CROWNING AND DITCHING:

Crowning with materials on site and ditching on one side of the road, on the uphill side, shall be required. The road cross section shall conform to the cross section diagrams in Figure 1 (attached page 6). Where conditions dictate, ditching shall be required on both sides of the road. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road).

6. DRAINAGE:

A. Drainage control shall be ensured over the entire road through the construction of ditches, sidehill outslping and insloping, lead-off ditches, culvert installation, and low water crossings.

B. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

PERCENT SLOPE AND SPACING INTERVALS FOR LEAD-OFF DITCHES:

Percent slope	Spacing interval
0 - 4%	150' - 350'
4 - 6%	125' - 250'
6 - 8%	100' - 200'
8 - 10%	75' - 150'

CROSS SECTION OF TYPICAL LEAD-OFF DITCH

1' MINIMUM DEPTH

BERM

NATURAL GROUND SURFACE

PERMANENT RESOURCE ROAD REQUIREMENTS

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C. A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

D. On road slopes exceeding 2%, water flow shall drain water into an adjacent lead-off ditch. Water flow drainage location and spacing shall be determined by the following formula:

FORMULA FOR SPACING INTERVAL OF LEAD-OFF DITCHES:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Ex. 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

7. CULVERT INSTALLATION: No culverts are required on this road.

ONE (1) CULVERT SHALL BE INSTALLED AT THE DEEP WATERWAY CHANNEL FLOW CROSSING IN THE XX¼XX¼ OF SECTION - T. S. - R. E. (SEE EXHIBIT A - LOCATION MAP).

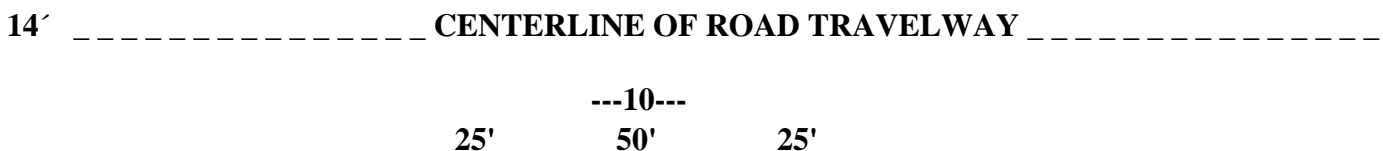
Culvert pipes shall be used where ravines, arroyo gullies, and deep waterway channel flows are crossed by the access road construction route. The culvert(s) shall not be less than XX inches in diameter (minimum 18 inch culvert). The location for the culvert installation is designated on the attached map - **EXHIBIT A**. (A culvert pipe installation diagram shall be attached to this requirement when a culvert is required to be installed, see EXHIBIT - X).

8. TURNOUTS:

9.

Vehicle turnouts shall be constructed on all single lane roads (unless the Authorized Officer determines that the turnouts are not required). Turnouts shall be intervisible and shall be constructed on all blind curves with additional turnouts as needed to keep spacing below 1000 feet. Turnouts shall conform to the following diagram:

STANDARD TURNOUT - PLAN VIEW



9. CATTLEGUARDS: NONE REQUIRED

A. ONE (1) CATTLEGUARD SHALL BE INSTALLED AT THE FENCE CROSSING IN THE XX¼XX¼ OF SECTION - T. S. - R. E. (SEE EXHIBIT A - LOCATION MAP).

B. A cattleguard installation diagram shall be attached to this stipulation when a cattleguard is required to be installed - see EXHIBIT X - DIAGRAM A & B).

C. The existing cattleguard(s) on the access road shall be replaced if they are damaged from heavy vehicular traffic use and the Authorized Officer determines that a new cattleguard shall be installed where the existing in place cattleguard(s) have deteriorated beyond practical use. The holder shall be held responsible for the condition of the existing in place cattleguard(s) that are utilized for vehicular traffic use on lease operations by the holder.

D. Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads, (exceeding H-20 loading,) are anticipated. (See BLM standard drawings for cattleguards – Exhibit X – Diagram A & B). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

10. MAINTENANCE:

A. The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, cattleguard maintenance, surfacing, and weed control.

B. The holder shall cooperate with other authorized users in maintenance of the road(s). Failure of the holder to share maintenance costs in dollars, equipment, materials, and manpower proportionate to the holders use with other authorized users may be adequate grounds to terminate the road use. The determination as to whether maintenance expenditures have been withheld by the holder and the decision to terminate the road use shall be at the discretion of the Authorized Officer. Upon request, the Authorized Officer shall be provided with copies of any maintenance agreements entered into by the holder.

11. PUBLIC ACCESS:

A Public access on this road shall not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands shall not be locked or closed to public use unless closure is absolutely necessary and is authorized in writing by the Authorized Officer.

12. ROAD REHABILITATION REQUIREMENTS:

A. SEE -SURFACE RECLAMATION/RESTORATION REQUIREMENTS - Exhibit E.

13. SPECIAL REQUIREMENT(S): NONE

EXHIBIT E

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SURFACE RECLAMATION/RESTORATION REQUIREMENTS

OPERATORS NAME: Yates Petroleum Corporation LEASE NO.: NM-16324
WELL NAME & NO: Charlotte Federal Com. #6
QUARTER/QUARTER & FOOTAGE: NE $\frac{1}{4}$ NW $\frac{1}{4}$ - 660' FNL & 1980' FWL
LOCATION: Section 29, T. 7 S., R. 26 E., NMPM
COUNTY: Chaves County, New Mexico

I. GENERAL PROVISIONS:

- A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
- B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who administers the reclamation requirements.
- C. The holder shall comply with all the surface reclamation/restoration required by the Authorized Officer pertaining to the reclamation/restoration of the access road and well pad.

II. FORM 3160-5, SUNDRY NOTICES AND REPORTS ON WELLS:

- A. The holder shall adhere to the following:

- 1. If the well is not drilled, please notify the BLM so that an official release can be approved.
- 2. **Downhole requirement:** If the well is a dry hole and will be plugged, approval of the proposed plugging program may be obtained orally. However, oral approval must be confirmed in writing by immediately filing a Sundry Notice And Report On Wells (Form 3160-5) "**Notice of Intention to Abandon**", an original and five (5) copies shall be submitted to the Roswell Field Office. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where plugs are to be placed, type of plug, type of plugging mud, etc..
- 3. The same notification shall be required of the Holder for the reclamation/restoration of the access road and well pad. The Holder shall initially report surface reclamation/restoration of the access road and well pad concurrently with the Downhole requirement. A Sundry Notice And Report On Wells (Form 3160-5) "**Notice of Intention to Abandon**", an original and five (5) copies shall be submitted to the Roswell Field Office. Upon receipt of the "**NOI**" the Authorized Officer shall provide the holder with the specific requirements for the reclamation/restoration of the access road and well pad.

4. **Subsequent Report Of Abandonment:** The holder shall submit a second report on Form 3160-5, Sundry Notices and Reports On Wells, an original and five (5) copies shall be submitted to the Roswell Field Office, pertaining to the reclamation/restoration of the access road and well pad. The holder shall demonstrate that the surface reclamation/restoration requirements have been complied with. The holder shall specify that the reclamation work accomplished the restoration of the disturbed areas to as near the original surface condition the land was in prior to construction of the access road and well pad.
5. **Final Abandonment Notice:** The holder shall submit a third report on Form 3160-5, Sundry Notices and Reports On Wells, an original and five (5) copies shall be submitted to the Roswell Field Office, that shall ascertain that all surface reclamation/restoration requirements have finally been completed and that the access road and well pad are ready for final inspection. The holder shall specify that the surface has been reclaimed in accordance with federal regulations and request for the final approval of the access road and well pad.

III. BOND LIABILITY:

- A. Liability under bond shall be retained until all surface reclamation/restoration of the access road and well pad has been completely reclaimed to the satisfaction of the Authorized Officer.

IV. ACCESS ROAD AND WELL PAD RECLAMATION REQUIREMENTS:

1. If the well is completed, all areas of the well pad not necessary for operations shall be reclaimed to resemble the original contours of the surrounding terrain.
2. Upon abandonment of the well, cut-and-fill slopes shall be re-contoured and reduced to a slope of 3:1 or less. The road shall be recontoured to as near the original topography, as possible.
3. Upon abandonment of the well, all production equipment shall be removed from the well pad and properly disposed of.
4. **Upon abandonment of the well, the surface material (caliche/gravel) shall be removed from the well pad and/or access road.** The removal of surface material shall be done with the minimal amount of mixing of the caliche or gravel material with the in place subsurface soils. The Authorized Officer shall be notified by the Holder for the proper disposal of the surfacing material from the well pad and access road.
5. The surfacing material that is removed can be used on existing roads in need of maintenance, or hauled to a federal material pit for disposal. If the material is to be used on a road or hauled to a material pit, contact the BLM Authorized Officer at (505) 627-0272 for possible additional requirements.
6. Upon removal of the surfacing material, the access road and well pad shall be ripped a maximum of **16** inches deep (Ripping depth will be determined by depth of soil shown in the Soil Conservation Service Survey Handbook).
7. All culverts and other road structures (e.g.: cattleguard, H-Braces, signs, etc.) shall be removed and properly disposed of.
8. All over-burden material shall be replaced in the cut areas, ditches, lead-off ditches, and any other excavated earthwork shall be back filled.

9. An earthen berm shall be constructed at the entrance of the road to prevent vehicular traffic on the reclaimed road.

V. Reserve Pit Reclamation Requirements:

- A. Upon reclamation of the reserve pit, the impervious, reinforced, synthetic or fabricated 12 mil in thickness liner shall be used to encapsulate the reserve pit cuttings.
- B. The dried cuttings in the reserve pit shall be buried a minimum depth of three (3) feet below ground level.
- C. The reserve pit area shall be covered with a three (3) feet minimum cap of clean soil or like material that is capable of supporting native plant growth. Once the reserve pit contents have been capped, the cap shall not be disturbed without NMOCD approval.
- D. Should the cuttings in the reserve pit not meet the three (3) feet below ground level depth, the excess contents shall be removed from the reserve pit until the required minimum depth of three (3) feet below ground level requirement has been met. The excess cuttings shall be removed from the well location and shall be properly disposed of at an authorized disposal site.
- E. Contact Jerry Dutchover, at (505) 627-0236, three days before commencing the reserve pit reclamation.

VI. SEEDING REQUIREMENTS:

- A. The stockpile of topsoil shall be spread over the well pad to cultivate a seed bed. The holder shall not contaminate the topsoil stockpile with the reserve pit muds and/or cuttings.
- B. The reclaimed area(s) shall be seeded with the seed mixture that was determined by the Roswell Field Office for the Desired Plant Community on this well site.
- C. The same seed mixture shall be used for the reclamation of the access road and well pad.
- D. The planting of the seed shall be done in accordance with the following seeding requirements:
 - 1. The topsoil soil shall be plowed under with soil turning equipment and the plowed surface shall be disked before seeding. Seed shall be planted using a drill equipped planter with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds have a tendency to drop to the bottom of the drill and are planted first; the holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre noted below are to be doubled.
 - 2. The holder shall seed all the disturbed areas with the DPC seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed per acre, (Pounds of pure live seed per acre: pounds of seed X percent purity X percent germination = pounds pure live seed). There shall be no primary or secondary noxious weeds in the seed mixture.

SURFACE RECLAMATION/RESTORATION REQUIREMENTS

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In accordance with State law(s) the seed should be tested for purity and viability within nine (9) months prior to sell. Commercial seed shall be either certified or registered seed. The seed mixture container shall be tagged in accordance with State law(s) and the certified seed tag shall be made available for inspection by the Authorized Officer.

3. Desired Plant Community seed mixture to be planted in pounds of pure live seed per acre:

<u>SD-3 Bottomland Range Site</u>		
Common Name And Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Giant Sacaton	<i>(Sporobolus giganteus)</i>	3.75 Lbs.
Vine Mesquite	<i>(Panicum obtusum)</i>	0.50 Lb.
Tobosa var. Viva or Galleta	<i>(Pleuraphis mutica)</i> <i>(Pleuraphis jamesii)</i>	2.75 Lbs.
Plains bristlegrass	<i>(Setaria vulpiseta)</i>	0.75 Lb.
Four-wing saltbush	<i>(Atriplex canescens)</i>	0.25 Lb.
Desert or Scarlet Globemallow	<i>(Sphaeralcea ambigua)</i> or <i>(S. coccinea)</i>	0.25 Lb.
Annual Sunflower	<i>(Helianthus annuus)</i>	0.75 Lb.
Total Pounds Pure Live Seed Per Acre		9.00 Lbs.

4. If one species is not available, increase ALL others proportionately. The seed mixture shall be certified weed free seed. A minimum of 4 species is required, including 1 forb species.

E. The recommended time to seed is from June 15th through September 15th. The optimum seeding time is in mid-July. Successive seeding should be done either late in the fall (Sept. 15th - Nov. 15th, before freeze up) or early as possible the following spring to take advantage of available ground moisture. However, the holder may seed immediately after completing surface abandonment requirements.

F. The seeding of the disturbed areas shall be repeated until a vegetation thicket is established on the access road and well pad. The Authorized Officer shall make the determination when the revegetation growth on the disturbed areas is satisfactory.

G. The holder shall be responsible for the establishment of vegetation on the access road and well pad. Evaluation of vegetation growth will not be made before the completion of the first growing season after seeding. The Authorized Officer reserves the right to require reseeding at a specific time if seed does not germinate after one growing season. Waiver of this requirement would be considered if diligent attempts to revegetate the disturbed areas have failed and the Authorized Officer determines that further attempts to replant the access road and well pad are futile.

H. Contact Mr. Richard Hill at (505) 627-0247 to witness the seeding operations, two (2) days prior to seeding the disturbed areas.

I. Invasive and Noxious Weeds Requirement:

1. The holder shall be held responsible if noxious weeds become established within the reclaimed areas. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the road, pad, associated pipeline corridor/routes, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

2. The holder shall insure that the equipment and or vehicles that will be used to reclaim the access roads and well pad are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to reclamation of the access roads and well pad.